

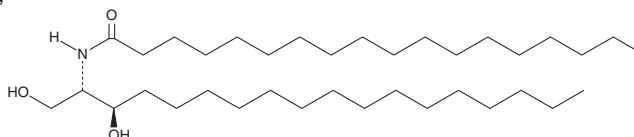
PRODUCT INFORMATION



C18 dihydro Ceramide (d18:0/18:0)

Item No. 24379

CAS Registry No.: 2304-80-5
Formal Name: N-[(1S,2R)-2-hydroxy-1-(hydroxymethyl)heptadecyl]-octadecanamide
Synonyms: Cer(d18:0/18:0), Ceramide (d18:0/18:0), C18 Dihydroceramide, N-octadecanoyl-D-erythro-Dihydrosphingosine, N-Stearoylsphinganine
MF: C₃₆H₇₃NO₃
FW: 568.0
Purity: ≥98%
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

C18 dihydro Ceramide (d18:0/18:0) is supplied as a crystalline solid. A stock solution may be made by dissolving the C18 dihydro ceramide (d18:0/18:0) in the solvent of choice. C18 dihydro Ceramide (d18:0/18:0) is soluble in DMSO and ethanol (warmed).

Description

C18 dihydro Ceramide is a bioactive sphingolipid and precursor in the *de novo* synthesis of C18 ceramide (Item No. 19556) that lacks the 4,5-*trans* double bond.¹ Increased C18 dihydroceramide lipid levels lead to increased triacylglycerol storage and autophagosome accumulation as well as upregulation of the fibrosis markers α -SMA and FGF2 in Chang and LX-2 liver cells. C18 dihydro Ceramide is elevated in the plasma of pre-diabetics up to 9 years prior to the onset of type 2 diabetes.² It is also elevated in the skin of patients with lesional atopic dermatitis.³

References

1. Lee, A.Y., Lee, J.W., Kim, J.-E., *et al.* Dihydroceramide is a key metabolite that regulates autophagy and promotes fibrosis in hepatic steatosis model. *Biochem. Biophys. Res. Commun.* **494**(3-4), 460-469 (2017).
2. Wigger, L., Cruciani-Guglielmacci, C., Nicolas, A., *et al.* Plasma dihydroceramides are diabetes susceptibility biomarker candidates in mice and humans. *Cell Rep.* **18**(9), 2269-2279 (2017).
3. Joo, J.-M., Hwang, J.-H., Bae, S., *et al.* Relationship of ceramide-, and free fatty acid-cholesterol ratios in the stratum corneum with skin barrier function of normal, atopic dermatitis lesional and non-lesional skins. *J. Dermatol. Sci.* **77**(1), 71-74 (2015).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 02/16/2024

CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD

ANN ARBOR, MI 48108 · USA

PHONE: [800] 364-9897

[734] 971-3335

FAX: [734] 971-3640

CUSTSERV@CAYMANCHEM.COM

WWW.CAYMANCHEM.COM